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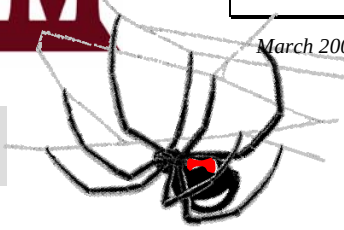
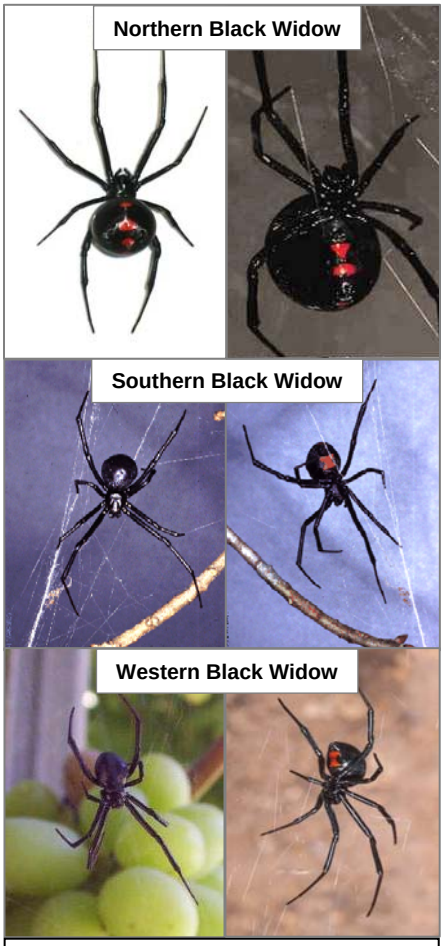


Just the Facts...

Widow Spiders

There are five species of widow spiders, north of Mexico, in North America: the brown widow (Latrodectus geometricus), the southern black widow (L. mactans), the western black widow (L. hesperus), the northern black widow (L. variolus), and the red widow (L.bishopi). The label of "widow" spider is somewhat misleading, since the females do not always eat the male after mating. Most widow spiders prefer to build their webs near the ground, in dark, undisturbed areas outdoors. Indoors, these spiders can be encountered behind furniture or under desks as well as basement areas and crawl spaces of buildings. Widow spiders are generally timid, but will bite humans if their webs are disturbed or if they are trapped between clothing and the skin. Widow spiders inject a toxin that affects the nervous system. Death from a widow spider bite in a normal healthy human is very rare, but is more likely in very small children and elderly victims. Sanitation and exclusion are effective strategies for preventing or reducing widow spider infestations in and around structures.



Black Widow Spiders. Viewed from the top (left), adult female black widow spiders are shiny black or brown-black; northern black widows usually have a row of large red spots. Viewed from the bottom (right), these spiders are marked with a red hourglass shape; in southern and western black widows, the hourglass is complete but in northern black widows, it is broken into two parts.

Q. What do widow spiders look like?

A. Mature female widow spiders are about ½ inch in length, have a rounded posterior, and long, slender legs. Males are about half the size of females, have a more elongated posterior, and longer legs. On the underside of the hind portion of the females, there is usually a red hourglass mark or one or two red spots. The brown widow is identified by the orange-red marking on the underside of the body, the light brown body color, and the prominent banding on the legs. The red widow is identified by the distinctive bright red legs, shiny black body and the orange-red half moon marking underneath. Black widow spider species are separated based on where they are found in North America and by the orange-red markings underneath the body. These markings range from an hourglass shape, in the southern and western black widows, to a broken hourglass shape or a line of red spots, in northern black widow spiders. Male widow spiders are small and the markings which differentiate them from other house spiders are difficult to see. Contact Preventive Medicine Activity personnel for assistance in identifying any spider.

Brown and Red Widow Spiders. Viewed from the top (left), adult female brown widow spiders are light tan to dark brown in color, with black, white, yellow, orange, or brown markings; the underside (right) has an orange to yellow-orange hourglass marking. Adult red widow females, viewed from the top (left), have reddish colored fronts and legs; the rear is dark reddish-brown to black with orange and yellow spots. The underside (right) may have a red hourglass or there may just be a non-distinctive red mark.

Q. Where do widow spiders live?

A. The brown widow has been reported from Alabama, California, Florida, Georgia, Mississippi, and South Carolina. Red widow spiders are found only in central and southern Florida, living in palmettos. The northern widow is found from New England south to Florida, and west to Kansas, Oklahoma, and eastern Texas. The southern black widow is found in southern New England to Florida west to Kansas, eastern Oklahoma, and Texas, and is more common in the southern part of the range. Western black widows live in Kansas, Oklahoma, western Texas, and north to the adjacent Canadian provinces and west to the Pacific Coast States. To capture their prey (insects), widow spiders build loose and irregular mesh-type webs, often on plants, in loose stone or wood piles, or in the corners of rooms, garages or outbuildings, usually near ground level.

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Q. How dangerous are widow spiders to humans?

A. Widow spiders are not aggressive. They will usually retreat to the corner of their web when disturbed. However, these spiders will be more aggressive when protecting their egg sacs. Many bites occur when someone accidentally traps them against their skin by putting on clothing or shoes in which the spider is hiding. Only adult female spiders are a significant threat to humans; immature stages and male spiders do not have fangs that are large enough to penetrate human skin. Widow spider venom is very potent, but it is injected in such small quantities that deaths are rare. Widow bites are most dangerous to very small children, the elderly, and those with serious health problems.

Bite Victim. Except for a pair of tiny fang marks, widow spider bites can, at first, go unnoticed.

Q. How can I tell I have been bitten by a widow spider?

A. The bite itself, which may or may not be felt, feels like a pin prick. Often, two small red marks from the fangs are noticeable on the skin. Widow spider bites seldom produce much swelling or skin damage at the bite site. These spiders inject a toxin that affects the nervous system. Muscle and chest pain or tightness are the most common reactions to widow spider toxin. The pain may also spread to the abdomen, producing cramping and nausea. In severe cases, the toxin can cause breathing and speech difficulty, heart irregularities, and even death from suffocation. If you suspect that you have been bitten by a widow spider, seek medical attention immediately, and, if possible, bring the spider with you to the hospital for positive identification. Antidotes are available for the venom of all the species of widow spiders found in the U.S.

Q. What can I do to protect myself from getting bitten by a widow spider?

A. Bites usually occur when a spider is trapped against human skin or if it's web is disturbed. Protect yourself against bites by inspecting and shaking out clothing and shoes before getting dressed. Wear gloves, long sleeve shirts, long pants and boots when cleaning areas where widow spiders may live. Remove outdoor clutter. Indoors, seal storage boxes with tape, and position off the floor and away from walls. Vacuum any cobwebs or spiders behind and underneath furniture and fixtures, and in the corners of ceilings and around floors and baseboards. Immediately remove the vacuum bag, seal it in a plastic bag, and place in an outdoor trash receptacle.

Outdoor Clutter. Eliminating piles of debris and wood lying on the ground close to or against buildings will greatly reduce the potential for widow spider infestations in and around structures.

Q. What can I do to get rid of widow spiders in and around a building?

A. The presence of widow spiders represents a potential health threat. Consult with Preventive Medicine Activity personnel at your supporting clinic to identify any spiders found in or around a building. Seek the assistance of the Installation Pest Control Office before applying pesticides for widow spider control in or around structures.

Nonchemical Approaches. Discourage widow spiders from taking up residence near a structure, since they may then move indoors. Remove potential hiding areas around the foundation and other areas in close proximity to the building. Keep these areas free of debris/trash, lumber piles, leaf litter, piles of stones, and thick ground covers or dense shrubbery. Store firewood as far from buildings as possible. Seal cracks and crevices in the structure where spiders can come in, especially around windowsills, door thresholds, and around pipes. Install tight-fitting screens on attic and foundation vents. Regular vacuuming or sweeping of windows, corners of rooms, storage areas, basements, garages, foundations, and outside eaves helps remove widow spiders, their webs, and egg sacs.

Chemical Approaches. Pesticides are another tool for widow spider elimination. Insecticides can be applied as crack, crevice, or spot treatments indoors and along the base of foundations outdoors. In the short term, this may result in the reduction of spider numbers and the insects they prey on in or near a building. However, insecticide applications alone will not provide long-term control nor prevent new infestations of widow spiders. Consideration should also be given to the fact that some pesticides and application techniques might encourage spiders to simply relocate to hard to reach areas or to wander onto exposed surfaces during daylight hours.

Q. Where can I get more information on widow spiders?

A. Contact the U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM), Entomological Sciences Program, APG, Maryland 21010-5403: DSN 584-3613, CM (410) 436-3613: FAX – 2037; http://chppm-www.apgea.army.mil/ento.

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